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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/346,353	07/02/1999	MARIE ANGELOPOULOS	YO996-049BX	2281

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EXAMINER	
YOON, TAE H	

ART UNIT	PAPER NUMBER
1714	21

DATE MAILED: 07/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/346,353	Angelopoulos
Examiner	**Group Art Unit**
T. Yoon	1714

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE THREE MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

☒ Responsive to communication(s) filed on 4-25-03, RCE.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-45 is/are pending in the application.

Of the above claim(s) 17-19, 21, 26-39 and 43-45 is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-16, 20, 22-25 and 40-42 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claim(s) _____ are subject to restriction or election requirement

Application Papers

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).

☐ All ☐ Some* ☐ None of the:

☐ Certified copies of the priority documents have been received.

☐ Certified copies of the priority documents have been received in Application No. _____.

☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

*Certified copies not received: _____.

Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Patent Application, PTO-152

☐ Other _____

Office Action Summary

Applicant had elected Group I, claims 1-16, 20-26 and 40-42, without traverse in Paper No. 6 and said claims have been examined. Thus, the examiner will continue to examine said claims 1-16, 20, 22-25 and 40-42 with respect to a plasticizer.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-16, 20, 22, 23 and 25 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 2 of U.S. Patent No.

5,969,024. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instantly recited additive (claim 1), second material (claim 7) and plasticizer (claim 12) encompass the siloxane of the patent as evidenced by claim 4, Siloxanes for example.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 24 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Now claim 24 recites polyaniline monomer, said, [sic] precursor and an oxidant. However, it does not have support in the originally filed specification, and thus constitutes New Matter. Applicant states "[i]f an oxidative polymerization were done there would be monomers and oxidants in the solution. Also, monomer and oxidants could be subsequently added.". Applicant's statement is directed to an oxidative polymerization *per se*, and the Examiner has clearly indicated that such method will not be examined in the Office Action mailed on May 4, 2000 (paper No. 7) since said method is distinct from the claim 1, a treatment of a polymer. Also,

note that a monomer cannot be conducting even with a dopant since an electron cannot travel from one monomer to another monomer. At least an oligomer (several repeating monomeric units) is needed in order to obtain conductivity.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 24 reciting "polyaniline monomer, said precursor and an oxidant" is confusing since claim 1 recites "forming an admixture of a solvent, an additive and a polymer". Also, said "polyaniline monomer" should have been "aniline monomer" since polyaniline is not a monomer, but a polymer.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Han (US 5,171,478), Ikkala et al (US 5,520,852) or Cao et al (US 5,232,631).

The process recited in Han, Ikkala and Cao inherently yields the recited at least one crystal grain and material having isotropic electrical conductivity. Examples of the cited art show processing of conducting polymers. See also, a decision by BPAI.

Thus, the instant invention lacks a novelty.

Claims 1-16, 20, 22, 23, 25 and 40-42 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Han (US 5,171,478).

Han teaches a method of plasticizing polyaniline by employing a plasticizer at col. 6, line 21 to col. 7, line 66 and in example 6. The removal of solvent is taught at col. 22, line 57 to col. 23, line 6 also. The recited plasticizers of Han would not substantially dissove polyanilines in the absence of a solvent, and would provide local mobility to polyanilines. The recited plasticizers of Han would not substantially dissove in polyanilines neither. Stretching of a film is the art known. Crystalline state is an inherent property in Han since the same materials and process (mixing polyaniline solution with an additive, and then removing a solvent) are used in Han and the instant

invention. Claim 42 recites that said plasticizer is an oxidant, and thus the plasticizer of Han meets the claims 40-42. See the decision by the BPAI also. Thus, the instant invention lacks a novelty.

Claims 1-16, 20, 22, 23, 25 and 40-42 are rejected under 35 U.S.C. 103(a) as obvious over Han (US 5,171,478) in view of Cao et al (US 5,232,631).

The claim 6 recites a stretch oriented film over Han. However, stretch orienting of a film is a routine proactice in the art as taught by Cao, col. 5, lines 61-62. See the decision by the BPAI also.

It would have been obvious to one of ordinary skill in the art at the time of the instant invention to stretch orienting the film of Han by teaching of Cao since films are known to subject to a stretch orientation in order to improve physical properties.

Claims 1-16, 20, 22, 23, 25 and 40-42 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Cao et al (US 5,232,631).

Cao eaches a method of plasticizing polyaniline by employing a plasticizer, surfactant, at col. 14, line 44 to col. 15, line 50 and in examples. The recited plasticizers of Cao would not substantially dissove polyanilines in the absence of a solvent, and would provide local mobility to polyanilines. The recited plasticizers of Cao would not substantially dissove in polyanilines neither. Stretching of a film is the art known. Crystalline state is an inherent property in Cao since

the same materials and process (mixing polyaniline solution with an additive, and then removing a solvent) are used in Cao and the instant invention. See the decision by the BPAI also.

Thus, the instant invention lacks a novelty.

The same reasoning in above "Han" is applied.

Claims 1, 2, 6-9, 15, 16, 20, 22, 40 and 41 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Elsenbaumer (US 4,983,322.

Elsenbaumer teaches the formation of an admixture of a polyaniline (col. 2, line 51 to col. 6, line 50), an "oxidizing dopant" (col. 6, line 51 to col. 8, line 3) and a solvent such as NMP (col. 8, lines 4-51). The solvent is removed from the admixture by 'any conventional solvent removal method" (col. 9, lines 54-61). Post solvent removal processing, such as film casting and extrusion are disclosed at col. 9, line 62 to col. 10, line 48. Said disclosure of Elsenbaumer meets the instant invention since applicant treats the same materials to the same steps as Elsenbaumer.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tae H. Yoon whose telephone number is (703) 308-2389. The examiner can normally be reached on Mon-Thr from 8:00 to 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (703) 306-2777. The fax phone number for this Group is (703) 872-9310

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0661.

THY/July 24, 2003

TAE H. YOON
PRIMARY EXAMINER